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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON
PORTLAND DIVISION

ROCKY BIXBY, et al,

Plaintiffs,

vs.

KBR INC., et al.,

Defendants.

Civil No. 3:09-cv-632-PK

KBR's Reply in Further Support of
Motion to Exclude Testimony of
Plaintiffs' Expert Dr. Arch Carson Re
Causation

ORAL ARGUMENT REQUESTED

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The Court should exclude Carson's unreliable causation opinion. Part I of this reply addresses Carson's failure to calculate dose. Part II shows that Carson has no reliable general causation opinion. Part III shows that Carson has no reliable specific causation opinion.

I.
No Dose Calculation

Plaintiffs do not point to any dose calculation. Instead, they try to argue around the absence of a dose calculation by claiming alternatively that Carson assessed dose "qualitatively," or that it is "impossible" to calculate dose. Both arguments are incorrect.

A. Carson Did Not Calculate Dose

Plaintiffs suggest that Carson's dose calculation exists but is just imprecise. It is not imprecise. It is nonexistent. Carson testified that he does not know any plaintiff's dose:

Q. You don't know what the dose is for any particular individual, correct?

A. That's correct.¹

Plaintiffs say Carson has a "qualitative" opinion about dose: "It's just big."² This approach by this expert has already been rejected at the federal appellate level. In *Burleson v. Texas Dep't of Criminal Justice*, 393 F.3d 577, 587 (5th Cir. 2004), Carson offered the same qualitative opinion about dose: "It's just high." The Fifth Circuit affirmed exclusion of this testimony and agreed with the district court's findings "that Dr. Carson failed to conduct a dose assessment" and "that Dr. Carson's opinion was based on speculation, guesswork, and conjecture." *Id.*

A dose opinion must be quantitative in order to be admissible. "The boundaries of allowable expert testimony are not so wide as to permit an expert to testify as to specific

¹ Motion to Exclude X-1 at 280:21-23 (all emphasis in this Reply is added unless otherwise noted).

² *Id.* at 280:24-281:5.

causation without having any *measurements* of a plaintiff's exposure to the allegedly harmful substance." *Henricksen v. ConocoPhillips Co.*, 605 F. Supp. 2d 1142, 1157 (E.D. Wash. 2009). The Ninth Circuit held in *Daubert II* "that it was insufficient for the plaintiffs' experts to speak of possibilities without attempting to *quantify* those possibilities." *Cloud v. Pfizer, Inc.*, 198 F. Supp. 2d 1118, 1133 (D. Az. 2001) (discussing *Daubert II*).

The Ninth Circuit rejected expert testimony like Carson's in a toxic tort case where plaintiffs alleged exposure to PCB's. In *Abuan v. General Elec. Co.*, 3 F.3d 329, 333 (9th Cir. 1993), plaintiffs' causation expert "stated that he 'did not develop a method for quantifying workers' exposures', and made a *qualitative rather than a quantitative decision* about exposure." Like Carson, the expert testified that plaintiffs had "*sufficient exposure*" to cause injury. *Id.* The Ninth Circuit held that this testimony was not sufficient to avoid summary judgment: "In cases claiming personal injury from exposure to toxic substances, it is essential that the plaintiff demonstrate that she was, in fact, *exposed to harmful levels* of such substances." *Id.* (emphasis in original). An expert's *ipse dixit* opinion that dose is qualitatively "sufficient" is no evidence of causation.

In *Daubert v. Merrell Dow Pharms., Inc.*, 43 F.3d 1311, 1321 (9th Cir. 1995), the Ninth Circuit held that plaintiffs are required to prove they suffered at least a doubling of the risk, and proving a quantitative dose is inherent in this requirement. Proof of "doubling of the risk" also is required under Oregon law. See *Hall v. Baxter Healthcare Corp.*, 947 F. Supp. 1387, 1403 (D. Or. 1996) (Jones, J.). A plaintiff can use an epidemiological study to support causation *only if the study shows a doubling of the risk* from exposure to the *specific* chemical at the *specific* concentrations over the *specific time period* in issue. *Schudel v. General Elec. Co.*, 120 F.3d 991, 997 (9th Cir. 1997).

In *Schudel*, plaintiff Williams alleged that she developed toxic encephalopathy from exposure to two cleaning solvents, TCA and Perc. She prevailed at trial, but the Ninth Circuit reversed. The Ninth Circuit held that the district court erred by admitting Williams' experts' causation testimony. Williams' expert Dr. Morton had relied on epidemiological studies to opine that Williams' condition was likely caused by TCA and Perc. But the studies involved other organic solvents. And they "examined long-term exposure at relatively low chemical concentrations or short-term exposure at very high concentrations, rather than the short-term, moderate-level exposure sustained by Williams." *Id.* Therefore, Dr. Morton could not use those studies to reliably opine that Williams' condition was caused by exposure to TCA and Perc: "Williams' exposure was neither long enough *nor intense enough* to fall within the ranges described in the studies Dr. Morton relied upon. Extrapolation was necessary to make the studies relevant, and there was no showing that the necessary extrapolation was scientifically acceptable." *Id.*

Carson provides no basis to conclude that plaintiffs' exposures, if any, were long enough and intense enough to be comparable to any studies, as *Schudel* requires. Carson has *not* satisfied the Ninth Circuit's requirement to compare plaintiffs' unproven, unquantified, and unestimated alleged exposures with the carefully documented, measured, and quantified exposures in Gibb's Baltimore chromate workers study or other epidemiological studies. No plaintiff expert has. Plaintiffs and Carson have not explained how Carson *could* make such a comparison without doing measurements or mathematical calculations.

Overlooking Carson's own admissions, plaintiffs try to say that Carson calculated dose based on plaintiffs' post-litigation self-reporting in 2011 of how many hours they remember spending at Qarmat Ali back in 2003 – and, along the way, Carson ignores the plaintiffs' own

contradicting information about their hours at Qarmat Ali reflected in their medical records, deposition testimony, and other more contemporaneous documents. On page 7 of their response, plaintiffs ridicule the idea that any factors matter other than hours at Qarmat Ali; they have no legal or scientific support for their misdirected ridicule.

Indeed, plaintiffs' own experts Gibb, Tarr, and Carson himself all disagree with plaintiffs' and Carson's hours-only approach. *See* Dkt. No. 311 at 3-5. *Plaintiffs ignored their expert Tarr's opinion* that exposure dose "would have changed from place to place and it would have changed from time to time for anybody that was at the site." *Plaintiffs ignored their expert Gibb's opinion* that dose is "dependent on the time, but also . . . dependent on the kinds of exposure that occurred during the day that the individual was there." *Plaintiffs ignored their expert Carson's opinion* in his report in this case that a causation opinion has little probative value if it focuses "on the duration of Plaintiffs' exposure without adequately taking into account the intensity of the Plaintiffs' exposure." *Plaintiffs also ignored Carson's admissions in the Langford arbitration* that "dose" is different than "duration" and that he could not assess causation without a dose calculation.

B. Carson Could Have Calculated Dose.

To distract from and avoid defending Carson's many failings, plaintiffs devote the bulk of their response to their misguided view of KBR's actions in 2003 that, plaintiffs say, somehow prevented Carson from calculating dose today. Plaintiffs do not present a declaration or testimony from Carson stating that he has been unable to calculate dose. Indeed, exposure dose can be, and often is, modeled after-the-fact rather than based on direct measurements at the time of exposure. If plaintiffs had wanted to, they could have prepared an exposure model and Carson

could have calculated or quantified dose. KBR's expert Dr. Beck did just that.³ But plaintiffs chose not to do this work because they knew any such model would show that plaintiffs' ailments were not and could not have been caused by their alleged exposure to sodium dichromate at Qarmat Ali.

Plaintiffs' blame-KBR stratagem is factually incorrect and legally nonsense. For example, plaintiffs argue that "KBR committed spoliation by failing to convey its knowledge of sodium dichromate contamination." In filing after filing, KBR exhaustively has cited the Army's own testimony that disproves plaintiffs' allegation. *See, e.g.*, Dkt. Nos. 230, 345. The U.S. Army Corps of Engineers (USACE) appreciated KBR's work and recognized that KBR was truthful in its communications. USACE's safety officer Mike Remington testified that "For that particular chemical, that particular time, that particular plant, *I'm satisfied with the communications on sodium dichromate.*"⁴ USACE's safety officer Jerry Balcom, who succeeded Remington in July 2003, testified that "in all honesty" he felt "that KBR deserved the US Army Corps' thanks for its work at Qarmat Ali."⁵ Balcom testified that "KBR communicated with [him] openly and honestly about the sodium dichromate hazard potential at Qarmat Ali," and that "at least at latest by June 25, 2003, when Mike Remington wrote his horizontal memo, *the Army Corps of Engineers had the responsibility to advise and inform everyone on the site including the National Guardsmen, the soldiers, the UK shooters and other Army Corps personnel about the potential health hazard posed by sodium dichromate exposure at Qarmat Ali.*"⁶ USACE's environmental specialist Christopher Kennedy testified that he was "satisfied" with the way the sodium dichromate situation was addressed, testified that "I believe they [KBR] did the best they could

³ X-12 (Beck declaration) at ¶¶ 4-5.

⁴ X-13 (Remington depo) at 264:25-265:5.

⁵ X-14 (Balcom depo) at 330:12-334:12.

⁶ *Id.* at 177:21-178:7; 180:12-18; 462:4 - 463:5.

in the time that they were given and under the conditions that they were working,” and that he and others at the USACE had “identified a potential sodium dichromate soil contamination issue and potential health hazard in early June 2003.”⁷

Plaintiffs have failed to show that anything KBR supposedly did or didn’t do “spoiled” any evidence. The U.S. Army was aware of the potential sodium dichromate contamination and health risks in June 2003 and chose not to do testing until a few months later in October 2003. And that testing undermines plaintiffs’ claims.

Plaintiffs also argue that KBR should not have remediated Qarmat Ali by laying asphalt over some of the contaminated ground in August and September 2003. In other words, plaintiffs ask this Court to embrace plaintiffs’ perverse notion that KBR had a *litigation duty* to leave in place what plaintiffs have described as an extremely hazardous condition so that plaintiffs could have had someone come into the war zone to take samples in order to support a many-years-later future toxic tort claim. Also, in late August and again in early September, *the USACE’s contracting officer expressly and in writing authorized KBR to apply the asphalt/gravel overlay*.⁸ The USACE’s safety officer Balcom noted the “need” for the overlay,⁹ and noted that the USACE/KBR contract had been amended to allow for the asphalt/gravel overlay.¹⁰ The Army found that the asphalt/gravel overlay was essential to the success of the project.¹¹

Plaintiffs’ factually incorrect theories are not “spoliation.” “Spoliation” is “the destruction of evidence . . . The significant and meaningful alteration of a document or instrument.” *In re Enron Corp. Secs., Derivative & “ERISA” Litigation*, 761 F. Supp. 2d 504,

⁷ X-15 (Kennedy depo) at 42:16-43:1; 59:15-19; 156:15-21.

⁸ X-16.

⁹ X-17.

¹⁰ X-18 at ARMY 002458.

¹¹ X-19 at ARMY 012691.

567 (S.D. Tex. 2011). Plaintiffs do not allege that KBR destroyed or altered a single piece of relevant evidence. Moreover, under Ninth Circuit law, KBR's actions in 2003 – six years before plaintiffs filed suit – could not have been spoliation. In *Akiona v. United States*, 938 F.2d 158 (9th Cir. 1991), plaintiffs sued the United States after they were injured by a grenade thrown by a man named Kaululaau into a parking lot. The grenade had been owned by the government in the late 1960's. *Id.* at 159. Plaintiffs were not able to introduce any direct evidence that the government was negligent because no one knew how Kaululaau got the grenade. *Id.* at 160. But the district court shifted the burden of proof to the government because the government had destroyed records pertaining to the grenade. *Id.* at 160-61. Plaintiffs prevailed at trial, but the Ninth Circuit reversed. *Id.* at 159.

The Ninth Circuit described two rationales for drawing an adverse inference from the destruction of evidence.

The evidentiary rationale is nothing more than the common sense observation that a party who has notice that a document is relevant to litigation and who proceeds to destroy the document is more likely to have been threatened by the document than is a party in the same position who does not destroy the document. . . .

The other rationale for the inference has to do with its prophylactic and punitive effects. Allowing the trier of fact to draw the inference presumably deters parties from destroying relevant evidence before it can be introduced at trial.

Id. at 161 (quoting *Nation-Wide Check Corp. v. Forest Hills Distribs., Inc.*, 692 F.2d 214 218 (1st Cir. 1982)). Drawing on these rationales, the Ninth Circuit focused on whether the documents had been destroyed in bad faith upon notice of potential relevance to particular litigation.

The evidentiary rationale does not apply here. *Nothing in the record indicates that the government destroyed the records pertaining to the grenade in response to this litigation.* Thus, its destruction of the records does not suggest that the records would have been threatening to the defense of the case, and it is therefore not relevant in an evidentiary sense.

The deterrence rationale similarly does not apply. A party should only be penalized for destroying documents if it was wrong to do so, and that requires, at a minimum, some notice that the documents are potentially relevant. . . . Here, the plaintiffs have not shown any bad faith in the destruction of the records, nor even that the government was on notice that the records had potential relevance to litigation. Nothing in the record indicates that the government destroyed the grenade records with the intent of covering up information.

Indeed, the government may have destroyed the records pursuant to its policy of destroying documents regarding grenades two years after their disposition.

Id. at 161.

Under *Akiona*, there cannot be an adverse inference against KBR based on plaintiffs' (incorrect) argument about certain events in summer 2003. Plaintiffs cannot establish that KBR laid asphalt over the sodium-dichromate-affected areas in order to destroy litigation evidence, rather than for the USACE-endorsed purpose of protecting the health of workers and soldiers, and for the USACE-endorsed purpose of fulfilling KBR's obligations under its contract with the USACE. The USACE's contemporaneous documents and approval establish the reason for the asphalt overlay, and disprove plaintiffs' litigation-driven and years-after-the-fact argument.

In *United States v. Kitsap Physicians Svc.*, 314 F.3d 995, 1001 (9th Cir. 2002), the Ninth Circuit applied its *Akiona* decision in a case where a *qui tam* plaintiff argued that a defendant physician practice group had engaged in spoliation by destroying billing records 2-5 years before plaintiff sued. The court noted that the plaintiff "could not have provided the notice required to establish a valid claim of spoliation." *Id.*; *see also id.* ("from the defendants' perspective, they were not on notice of potential litigation, much less a specific, future *qui tam* lawsuit").

Further, KBR was entitled to rely on the October 27, 2003 findings of the U.S. Army Center for Health Promotion and Preventive Medicine ("USACHPPM") that "No long-term cancer risk expected based on length of exposure," that soldiers had only "minimal short term

exposure,” that the reported symptoms had “Most likely causes from Dehydration, Weight gaining products (protein and creatine), Recent strenuous exercise, Pre-existing conditions,” and that “normal or slightly elevated” blood test results “Makes *causal relationship indeterminate*.”¹²

Like the defendant in *Kitsap*, KBR cannot be said to have destroyed documents or other evidence in bad faith based on supposed notice of a potential future lawsuit when it had contemporaneous findings that there was no expectation of injuries from the potential exposures, when the U.S. Army and British military concluded there was no long-term health risk and that even the alleged “acute” and “irritative” symptoms (like nose bleeds, breathing issues, rashes, etc.) were “non-specific,” not causally connected to sodium dichromate, and more likely a result of the desert environment.

Plaintiffs try to conjure up phantom “spoliation” arguments because plaintiffs *need* there to be spoliation. They can’t prevail on the merits, and they know it. But there is no spoliation. And spoliation cannot rescue Carson’s legally unreliable and inadmissible opinions.

II.

No Reliable General Causation Opinion

Carson does not offer reliable general causation testimony. A toxic-tort plaintiff must “show that he was exposed to chemicals that could have caused the physical injuries he complains about (general causation), *and* that his exposure did in fact result in those injuries (specific causation).” *Golden v. CH2M Hill Hanford Group*, 528 F.3d 681, 683 (9th Cir. 2008). “Testimony regarding specific causation in a given patient is irrelevant unless general causation is established.” *Hall v. Baxter Healthcare Corp.*, 947 F. Supp. 1387, 1413 (D. Or. 1996) (Jones, J.).

¹² X-20 at MCMEBADG 002011, 2012, 2014, 2018.

Plaintiffs say general causation “cannot seriously be questioned.” Saying so does not make it so. Causation cannot be assumed. *Avila v. Willits Env’tl Rem. Trust*, 633 F.3d 828, 838 (9th Cir. 2011). “District courts *must* carefully analyze the studies on which experts rely for their opinions before admitting their testimony.” *Knight v. Kirby Inland Marine Inc.*, 482 F.3d 347, 355 (5th Cir. 2007). The Ninth Circuit requires that causation opinions be supported by statistically significant epidemiological evidence. *Daubert v. Merrell Dow Pharms.*, 43 F.3d 1311, 1320-21 (9th Cir. 1995).

On page 21 of their response, plaintiffs say it is not necessary to rely on epidemiological studies. Wrong. “The existence or nonexistence of relevant epidemiology can be a significant factor in proving general causation in toxic tort cases.” *Hall v. Baxter Healthcare Corp.* 947 F. Supp. 1387, 1403 (D. Or. 1996). Plaintiffs cite an exhibit listing several publications, but they do not show that *any* of the publications supports a statistically significant doubling of the risk at the proper dose levels. The only study plaintiffs actually discuss is their expert Gibb’s Baltimore chromate workers study. On pages 14-15 of its motion, KBR showed how *Gibb’s Baltimore study actually refutes causation* for most of plaintiffs’ alleged ailments. On pages 19-20, KBR showed that the Baltimore study also cannot support causation because of substantial differences between exposures of the chromate workers and plaintiffs. Plaintiffs did not dispute this. Plaintiffs just incorrectly say that KBR’s expert Dr. Beck “agrees with Dr. Gibb that sodium dichromate can cause the symptoms reported by Plaintiffs.” That is categorically false. According to Dr. Beck, the relevant science, including Gibb’s chromate workers study, demonstrates that plaintiffs’ exposures could *not* have caused plaintiffs’ symptoms.¹³

¹³ Motion to Exclude X-4 at ¶¶ 6-7.

III.

No Reliable Specific Causation Opinion

Carson's specific causation opinion also is unreliable because it is not based on a scientific analysis, does not take evidence into account, and does not reflect a real differential diagnosis. Carson's recent deposition testimony confirms and amplifies these concerns. Carson's expert report with a "*complete* statement of *all* opinions" and the "basis and reasons for them" was due on June 10, 2011. *See* FRCP 26(a)(2)(B)(i). Instead, plaintiffs provided a 4½-page report and a "medical cover page" for each plaintiff. Five months later, plaintiffs sprung Carson's expanded "supplemental" report, and this Court sanctioned plaintiffs for their violation.

On March 28, 2010, KBR deposed Carson. More than nine months after serving his report, he candidly admitted: "I didn't come here today prepared to discuss my opinion on any of these individual plaintiffs."¹⁴ Plaintiffs incorrectly say KBR agreed Carson could be unprepared. Not true. KBR specifically and in writing told plaintiffs over a week before the deposition that "*we of course intend at Carson's initial depo this month to ask questions about specific plaintiffs at a minimum to illustrate problems with Carson's methodology and other deficiencies in his opinions, approach and basis for them, and Carson should be prepared to address, explain, and defend all aspects of his work to the extent he can.*"¹⁵

Carson proved unable to address, explain, or defend his methodology. KBR found out that, even in his tardy November 2011 report, Carson *still* had not disclosed significant aspects of his work. For example, Carson for the first time disclosed at his deposition that he had compiled his "medical cover pages" for each plaintiff from detailed, previously-undisclosed spreadsheets. Plaintiffs produced the spreadsheets after the deposition, and KBR had to depose Carson again.

¹⁴ Motion to Exclude X-1 at 205:3-12.

¹⁵ X-21.

This second deposition laid bare Carson's causation methodology, or lack thereof. Carson testified about the generation of the "medical cover pages" which contained his original plaintiff-specific opinions. Rather than offering an opinion about *causation of specific illnesses*, each cover page only stated whether a plaintiff had any of four *categories of symptoms* which were *consistent with* hexavalent chromium "exposure-related illness." *Carson admitted at his deposition that a computer algorithm, not a person, decided which of the four categories of symptoms were "consistent with" hexavalent chromium exposure.*¹⁶

For three categories of symptoms – upper respiratory, lower respiratory, and gastrointestinal – a plaintiff only had to say he had one symptom in order for the computer algorithm to attribute symptoms to hexavalent chromium exposure.¹⁷ For example, if a plaintiff had swollen mucus membranes (a condition which Carson admits can be caused by the common cold or allergies), the algorithm would say it is consistent with exposure-related illness.¹⁸

In the fourth category – skin – the algorithm would render a "consistent with" opinion if the plaintiff said he had only two out of more than 40 symptoms.¹⁹ Dr. Patricia Norris, a board-certified dermatologist, describes Carson's approach:

There is no reliable scientific evidence to support the methods Dr. Carson has used to diagnose skin conditions caused by chrome exposure. Dr. Carson's method will lead to hundreds of potential combinations and hundreds of skin conditions that would fit those combinations, virtually all of which are not related to chrome exposure or allergic contact dermatitis arising from such exposure. For example, Dr. Carson's approach would capture skin conditions caused by acne, fungal infections like athlete's foot and jock itch, and folliculitis (a condition caused by ingrown hairs). None of these have any relation to chrome exposure

¹⁶ X-22 (Carson 5/7/12 depo) at 411:4-9, 439:3-8, 443:24-444:2, 451:19-23.

¹⁷ *Id.* at 458:21 - 459:10.

¹⁸ *Id.* at 459:4 - 462:4

¹⁹ *Id.* at 466:9-19.

and many of these have been diagnosed by various plaintiffs' treating physicians. And there are hundreds of other examples.²⁰

If Carson had wanted to diagnose skin conditions related to sodium dichromate exposure, he would have tested plaintiffs for a chrome allergy. Dr. Norris describes the importance of such testing:

Specific characteristics are associated with the diagnosis of a skin condition arising from exposure to chrome. Allergic contact dermatitis where the allergen is chrome is the only skin condition related to chrome exposure that would still be present years after the plaintiffs left Qarmat Ali (consistent with Dr. Carson's physical examinations of plaintiffs in 2011 or later upon which he bases his opinions). Those characteristics are far more specific than the dozens of descriptors included by Dr. Carson in his spreadsheet. And once such specific characteristics are seen in a patient, a recognizable and well established method known as patch testing is used to make the diagnosis of allergic contact dermatitis arising from chromate exposure. Patch testing, when performed and interpreted properly, is a scientific method of investigation with definite rules, regulations and fundamentals. This is the only scientific or medical "proof" of allergic contact dermatitis. . . . Patch testing has been the gold standard since the early 1920's to make the diagnosis of allergic contact dermatitis and to tie it to specific allergens such as chrome (there are hundreds of other known allergens that also can cause allergic contact dermatitis). Among other things, patch testing confirms which allergens are causing the skin condition.²¹

Carson declined to patch test the plaintiffs.²² Carson's deficient methodology reflects the fact that he is not a specialist in dermatology, a fact that he freely admits.²³

Carson admitted that he used the same computer algorithms in preparing his tardy supplemental report.²⁴ Thus, Carson's "causation" opinion shows only whether a plaintiff had a symptom and went to Qarmat Ali. Carson does not provide the minimal requisites for finding that an exposure more likely than not caused an illness: a dose calculation, literature showing

²⁰ X-24 (Norris declaration) at ¶ 2.

²¹ *Id.* ¶ 3.

²² *Id.* ¶ 4; X-23 (Carson depo) at 227:2 – 228:17.

²³ X-23 (Carson 3/28/12 depo) at 48:6-8; X-22 (Carson 5/7/12 depo) at 437: 5-7.

²⁴ X-22 (Carson 5/7/12 depo) at 516:20 – 517:8.

that the dose more than doubled the risk of a specific illness, and a diagnosis of the same specific illness.

It gets worse. Carson's algorithm analyzed only data plaintiffs gave him in interviews. ***Carson admitted his algorithm did not use plaintiffs' medical records.***²⁵ Carson's testimony strongly suggests that, to the extent he reviewed medical records, he did so only to "check off a box" for a question he was likely to be asked in deposition.²⁶

Plaintiffs say Carson "cannot be faulted for not reviewing records he was not provided." Yes he can. Plaintiffs have the burden of proof and thus the burden to procure records. It is Carson's responsibility to insist before rendering an opinion that he receive necessary medical records from plaintiffs. By ignoring that obligation, Carson demonstrated the unreliability of his work, as shown by the *Claar* and *Castellow* cases that KBR briefed and plaintiffs failed to distinguish.

On pages 16-19 of its motion to exclude, KBR showed that Carson unreliably failed to link plaintiffs' specific exposures to their specific medical conditions, as required by the Ninth Circuit in *Lust v. Merrell Dow Pharms., Inc.* 89 F.3d 594 (9th Cir. 1996), and *Schudel v. General Elec. Co.*, 120 F.3d 991 (9th Cir. 1997). Plaintiffs did not distinguish these cases or any of the many district court cases that excluded expert causation testimony on the same grounds (*Lusch*, *Henricksen*, *Newkirk*, *Hall*), all of which are cited in KBR's brief.

Carson's lack of rigor also comes through in his failure to review plaintiffs' depositions. Plaintiffs do not dispute that Carson reviewed only two plaintiff depositions (both from *McManaway*), but they say plaintiffs' deposition testimony is not important because KBR's counsel asked Carson about "only" two glaring inconsistencies between what plaintiffs told

²⁵ *Id.* at 385:7-19

²⁶ *Id.* at 522:16-523:19.

Carson and what they swore under oath. Tip of the iceberg. Carson's opinion is based solely on what plaintiffs told him. Carson's failure to review plaintiffs' *sworn* testimony *on the same subject* – because Carson says it would “torture” him to do the work – reveals Carson's lack of commitment to generating a reliable causation analysis.

On page 11 of the motion to exclude, KBR showed that Carson ignored the plaintiffs' statements to CHPPM in 2003 which directly undermine Carson's attribution of sodium dichromate-caused symptoms. Plaintiffs do not respond. They cannot defend Carson's work.

Carson's algorithm did not consider “confounding factors” and so his “cover pages” did not reflect a differential diagnosis.²⁷ Carson claimed to have conducted a “differential diagnosis” in connection with his supplemental report, but he would not disclose his results:

Q. So how do I know which symptoms, after you did your differential diagnosis, are the ones you were referring to in any of the supplemental reports where all you say is either upper respiratory, lower respiratory, skin, gastrointestinal or remote, other than coming here and asking you about it?

A. *I guess you can't.*

Q. And when do you plan on telling us for the Group One plaintiffs in Bixby what the particular symptoms or conditions that you have concluded are in any of those four organ system categories and having done a differential diagnosis you have concluded, more likely than not, to a reasonable scientific – to a reasonable medical certainty, are caused by exposure to sodium dichromate?

A. When do I plan on providing those to you?

Q. Yes.

A. *Well, I don't.*²⁸

²⁷ *Id.* at 423:21 – 424:3.

²⁸ *Id.* at 499:13-500:5.

This is typical of Carson's hide-the-ball approach, and plaintiffs can't defend it. All plaintiffs do is try to analogize Carson's approach to KBR's expert's Dr. Weill's vastly more detailed and thoroughly explained work reflected in the dozens of multi-page reports he prepared for each plaintiff. Plaintiffs also do not try to distinguish the *Raynor* and *Avila* cases that show that Carson's undisclosed differential diagnosis methodology is unreliable.

In *Avila v. Willits Env't'l Rem. Trust*, 633 F.3d 828, 840 (9th Cir. 2011) – a one-year old Ninth Circuit case – plaintiffs' expert, like Carson here, asserted he conducted a differential diagnosis. There, the expert, unlike Carson, even went to the trouble of describing his four-step methodology for conducting a differential diagnosis. But the expert's opinion still was unreliable because he did not follow the methodology. The Ninth Circuit explained that the expert “offered no specifics to show a plausible link between disease and exposure, or between exposure and onset of disease.” *Id.* The Ninth Circuit explained that the supposed differential diagnosis did not follow any methodology: “Nor did Levin's report ‘consider’ confounding factors; it just dismissed them.” *Id.* Carson's similarly deficient opinion is unreliable and inadmissible under this controlling Ninth Circuit precedent.

A similar case from this district court is *Hall v. Baxter Healthcare Corp.*, 947 F. Supp. 1987 (D. Or. 1996) (Jones, J.), in which the court rejected a causation expert's differential diagnosis testimony because he did not testify “as to *how* he eliminated other potential causes” of the plaintiff's disease. *Hall*, 947 F. Supp. at 1414. Carson has not demonstrated any methodology behind his differential diagnosis, and in fact, plaintiffs do not rebut any of the facts, discussed by KBR on pages 16-20 of its motion, that show Carson's purported differential diagnosis is a sham.

Conclusion

The Court should exclude Carson's unreliable causation opinions.

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Respectfully submitted,

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Certificate of Compliance

This brief complies with the applicable word-count limitation under LR 7-2(b), 26-3(b), 54-1(c), or 54-3(e) because it contains 4746 words, including headings, footnotes, and quotations, but excluding the caption, table of contents, table of authorities, signature block, and any certificates of counsel.

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